|  |  |  |
| --- | --- | --- |
| Names of Students Teaching: Madison Pratt and Mary Margaret Sanford | | Mentor’s name: Mrs. Latoya Johnson Mentor’s school: Bernard Terrace Elementary School  Subject/Grade level: 4 |
| Lesson #: 2 Date lesson will be taught: November 14, 2017  Time lesson will be taught: 11:30 – 12:30 Length of lesson: 50 minutes | | Title of lesson: Multiplying Party!  Technology lesson: Yes No  Lesson source: Louisiana State Standards for Mathematics, ZEARN |
| Concept statement/Main idea: *In paragraph form, write the concepts and vocabulary of this activity. Include a statement indicating why this concept is important to teach.*  The main concept of this lesson is for the students to learn how to involve multiplication in word problems. The students will learn the multiple ways to describe multiplication in a word problem (e.g. “x times as many” vs. “x more than”). | | |
| Louisiana Students Standards for Mathematics: List the appropriate content standards for your lesson.  4.NBT.B.5  4.OA.A.2  4.OA.A.3 | **Standards for Mathematical Practice: List the appropriate practice standards for your lesson.**   1. Make sense of problems and persevere in solving them 2. Reason abstractly and quantitatively 3. Construct viable arguments and critique the reasoning of others 4. Model with mathematics 5. Use appropriate tools strategically 6. Attend to precision 7. Look for and make use of structure 8. Look for and express regularity in repeated reasoning | |
| Objective/s– Write objective/s in SWBAT form.   1. SWBAT solve multi-step word problems with whole number answers using multiplication. | Evaluation   1. The town of Scottsdale uses 3,465 gallons of water to fill up the community pool. The town of Farmville uses 3 times as much water as the town of Scottsdale to fill up their community pool. How much water is used to fill up Farmville’s pool? | |
|  |  | |

|  |  |
| --- | --- |
| **Prior Student Knowledge** *What information/skills does the learner have before new information is given?*  The learner should also be able to multiply 1 digit numbers by any 1-3 digit number. | **Possible Student Preconceptions/Misconceptions** *What incorrect information does the student possess?*  The student may not know how to regroup when multiplying. |
| **MATERIALS LIST** (**BE SPECIFIC** about quantities; transfer this information to the materials list at the end of this document) **Include handouts** at the end of this lesson plan document. List handouts in your materials list below.  **For whole class:** PowerPoint  **Per group:** multiplication confetti  **Per student:** exit tickets, worksheet, scratch paper, and gift bags  **ADVANCE PREPARATION:** create name tents for each student, cut out the confetti, prepare gift bags, prepare PowerPoint, and prepare worksheets.  **ACCOMMODATIONS:** Include a general statement and any specific student needs.   * In case of allergies, we will not give any chocolate or nut candy | **Safety Considerations:** Include a general statement and any specific safety concerns.  Engagement: none  Exploration: none  Explanation: none  Elaboration: none  Evaluation: make sure no one is allergic to any of our candy |

## Engagement - Estimated time: 5 minutes

## Description of Activity: The students will be reviewed on prior multiplication knowledge.

|  |  |  |
| --- | --- | --- |
| What the teacher does and how the teacher will direct students (directions): | Probing Questions: Critical questions that will connect prior knowledge and create a “Need to Know” Expected Student Responses – *think like a student to consider possible student responses* | **What the students are doing:** |
| The teachers will present the first slide of the PowerPoint and leave it up for the students to see.  “We know that you already know how to multiply 2 and 3-digit numbers by a 1-digit number, so let’s review that with a couple of problems.”  Start out with two 1 x 2-digit questions and solve on the board:  1. 43 x 5  2. 27 x 3  3. 156 x 7  (Mary Margaret will write the questions on the board while Maddie talks through the PowerPoint) | Does anyone want to come up to the board and answer this question? (say this 3xs for each problem)  “1. 215  2. 81  3. 1092” | The students will go to the board and answer the multiplication problems provided |
| Transition: Now that we know you can multiply by two and three-digit numbers, let’s try moving onto bigger numbers. (Show the directions on the ppt.) | | |

## Exploration - Estimated time: 15 minutes

## Description of Activity: The students will work with confetti to solve problems on a worksheet as well has work on vocabulary.

|  |  |  |
| --- | --- | --- |
| What the teacher does and how the teacher will direct students (directions): | Probing Questions: Critical questions that will guide students to a “common set of experiences.” Expected Student Responses – *think like a student to consider student responses* | **What the students do:** |
| The teachers will ask the students to grab a bag of confetti off their desk.  The teachers will work through the problems with confetti with the students  At this point the teachers would be walking around the classroom to make sure the students were working the problem out correctly on their worksheets (attached at the bottom of this document).  “Remember to group your tens into the hundreds place.”  Do the same for 3,152 x 2. | Let’s solve 2,061 x 4. For the number 2061, how many confetti will be in the thousands place? “2”  Hundreds? “0”  Tens? “6”  Ones? “1”  Now multiplying it by four, how would this look on the sheet?  How many ones do we end up with? “4”  How many tens do we end up with? “24”  How many hundreds do we have? “0”  How many thousands do we have? “8”  What was the final answer you got? “6,304” | The students will take out their bag of confetti and wait for further instructions  The students will solve problems using their confetti on a worksheet.  The students will tell the teacher how many confetti go in each place |
| Transition: Great job guys! Since we can multiply four-digit numbers by one-digit numbers, with our confetti, we will solve some without using confetti. | | |

## Explanation - Estimated time: 10 minutes

## Description of Activity: The students will work out four-digit numbers multiplied by one-digit numbers on their own as well as on the board.

|  |  |  |
| --- | --- | --- |
| What the teacher does and how the teacher will direct students (directions): | Probing Questions: Critical questions that will help students “clarify their understanding” and introduce information related to the lesson concepts and vocabulary Expected Student Responses – *think like a student to consider possible student responses* | **What the students are doing:** |
| Now without using your confetti, we are going to solve 1783 x 5 on the board. Does anyone want to volunteer to come up and solve it with the class?  “Okay guys, y’all work these next two problems on your scratch paper.” The teachers will walk around to help any students as necessary | Okay class can anyone help us solve this problem?  How many ones doe we have? “15”  How did you get that answer? “5 x 3 is 15”  How many tens? “41”  How did you get that answer? “5 x 8 is 40 and then add it to the 1 from the ones”  How many hundreds? “39”  How did you get that answer? “5 x 7 is 35 plus the 4 from the tens place”  How many thousands? “8”  How did you get that answer? “5 x 1 is 5 plus the 3 carried over from the hundreds place”  What is the final answer? “8915”  Someone come to the board and answer the question 7,082 x 6. “42,492”  Someone come to the board and answer the question 2,727 x 9. “24,543”  Can someone show their work for the first problem on the board?  Can someone show their work for the second problem? | The students will come up to the board and solve more problems vertically, without confetti.  The students use their knowledge from the confetti to solve the next two math problems on their won  The students will show their work from their worksheets to the classroom |
| Transition: Now let’s use what we learned to solve the problem from the beginning of class. | | |

## Elaboration - Estimated time: 10 minutes

## Description of Activity: The students will learn how to use their multiplication skills towards multi-step word problems

|  |  |  |
| --- | --- | --- |
| What the teacher does and how the teacher will direct students (directions): | Probing Questions: Critical questions that will help students “extend or apply” their newly acquired concepts/skills in new situations Expected Student Responses – *think like a student to consider student responses* | **What the students are doing:** |
| The teachers will present the rest of the PowerPoint (beginning at slide 4) to the students. | Teacher will ask the questions that are on the PowerPoint and students will answer them. | The students will work out the multi-step word problem on the PowerPoint with the teachers. |
| Transition: Now that we have finished our lesson, we are going to work on our exit tickets! | | |

## Evaluation: - Estimated time: 10 minutes

## Description of Activity: The students will work on their exit tickets that the teachers will hand out their gift bags after the students complete their exit ticket.

|  |
| --- |
| Critical questions that ask students to demonstrate their understanding of the lesson’s performance objectives. |
| **Formative Assessment(s):** In addition to the pre and post assessments, if applicable, how will you determine if the students mastered the objectives for this lesson (i.e., observations, student responses/elaborations, white boards, student questions, etc.)?  During the lesson, the students will write their work on the board so the teachers can gauge how well the students are grasping the lesson. The teachers will also ask for explanations as to how students got to their answers. |
| **Summative Assessment:** *Provide a student copy of the exit questions or post assessment (attach extra pages to this document).*  The exit ticket is attached at the bottom of this page. |

Exit Ticket

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directions: Solve this problem using your knowledge from the lesson. Try to work on your own first, but if you need help, you may ask your group members. Show your work at the bottom of the page.

1. The town of Scottsdale uses 3,465 gallons of water to fill up the community pool. The town of Farmville uses 3 times as much water as the town of Scottsdale to fill up their community pool. How much water is used to fill up Farmville’s pool?

* Which town uses more water to fill up their pool? (circle one)

Farmville Scottsdale

* How much more water does Farmville use than Scottsdale? \_\_\_\_\_\_\_\_\_\_\_
* Draw a tape diagram to depict the amount of water used to fill up the two pools.

Scottsdale:

Farmville:

* How much water does Farmville use to fill up their pool? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Worksheet

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

THOUSANDS HUNDREDS TENS ONES

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

THOUSANDS HUNDREDS TENS ONES

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |